

CASE NO. 8659
BELL ATLANTIC-MARYLAND, INC.
DATA REQUEST DATED AUGUST 30, 1994
TO
SBC MEDIA VENTURES, INC.

Note: All inquiries concerning this data request may be referred to Mark Armstrong, Director-External Affairs, (301) 294-7632.

4. (a) Please describe how originating and terminating local and toll calls would be handed off between SBC-MV and BA-Maryland. (b) Include in your description those charges that you feel would be appropriate for each type of call. (c) Also, please discuss how you expect to complete local, interLATA calls.

Answer:

- a) SBC-MV proposes that originating and terminating local and toll calls be handed off between SBC-MV and BA-Maryland over digital trunking facilities utilizing SS7 signalling.
- b) Mr. Armstrong's Direct Testimony, pages 13-16, discusses appropriate charges for toll and local calls SBC-MV and BA-Maryland would hand each other.
- c) SBC-MV proposes to hand these calls to the Bell Atlantic Access Tandem for completion. However, direct trunk groups may be established depending on call volumes.

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5. Please provide any analysis or studies you have that discuss how "customers learn to adapt in an environment of choice." Also, please provide any analysis or studies that discuss how customers reacted to Divestiture and the confusion it caused (Page 11 of Mr. Armstrong's August 3 testimony).

Answer:

SBC-MV has not conducted nor is it in the possession of any such studies. Our conclusions come from personal experience and observation.

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6. What methods is SBC-MV considering to minimize the impact of changes in local calling areas in Laurel situation cited in footnote 9 of Mr. Armstrong's August 3 testimony.

Answer:

As noted in Mr. Armstrong's testimony, the exchanges and calling scopes discussed in his testimony were preliminary. As those exchanges and calling scopes are finalized, issues such as that cited in footnote 9 will be addressed.

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7. Please provide any plans that SBC-MV has made to help customers avoid being confused by SBC-MV's different exchanges and local calling areas.

Answer:

As the exchanges and calling scopes discussed in Mr. Armstrong's testimony are preliminary, we are still in the process of developing plans and assessing impacts. To the extent that a person's calling scope/exchange remains the same, there should be little if any confusion - that is why SBC-MV is considering adopting the position on calling scopes articulated in the testimony. As with most any new product or service, customer education will be the key. SBC-MV will develop and implement programs that should serve to minimize the confusion our customers might experience. This will supplement the 24 hour per day access customers will have to our Customer Service Department.

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8. Does SBC-MV plan to have its customer use 10-digit dialing when calling into Washington, D.C. and Northern Virginia?

Answer: YES

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9. Please provide any analysis or studies you have performed which estimate the difference in 301-NXX code exhaust as a result of using four exchanges instead of nine.

Answer:

SBC-MV used the direct testimony of Charles H. Eppert, III, Director - Technical Regulatory Analysis, Bell Atlantic Network Services Staff, in Case number 8584, dated November 19, 1993 as a basis of the impact of four exchanges rather than nine. Mr. Eppert stated: "If MFS-I plans to model C&P's local calling areas by replicating C&P's use of central office codes to identify local calling areas, then MFS-I could potentially require 157 central office codes. Assignment of that many codes to MFS-I, however, would greatly accelerate exhaustion of this numbering resource." SBC-MV agrees with the direct testimony provided by Bell Atlantic in Case 8584. Therefore, to the extent SBC-MV and other local exchange providers are able to consolidate NXX usage by defining different and larger exchange boundaries than Bell Atlantic, they will be able to delay the exhaust of 301 NPA codes.

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10. On lines 5 and 6 of page 24 of Mr. Armstrong's August 3 testimony, it is stated that MFS-I sought only to serve large business customers. Please provide support for this statement.

Answer:

The descriptor "large" was intended to distinguish MFS-I's market focus from the residential and one/two line business customers SBC-MV will serve. In any case, the point the testimony makes is while the companies are different, both should be afforded the same treatment for purposes of COMAR waivers.

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11. Is SBC-MV planning to allow resale of its local exchange service?

Answer:

SBC-MV has not made a final decision on the question of which services, if any, SBC-MV will allow to be resold. We are considering the issue and if we do decide to allow resale, we will file for such authority with the Commission. Armstrong-Exhibit C (Page 3) is an example of the type of resale SBC-MV is considering.

For purposes of this case, and the tariff we are asking the Commission to approve (Armstrong-Exhibit A - Page 29), we are specifically prohibiting reselling or sharing services or allowing SBC-MV's services to be used to provide interexchange service unless such resale, sharing, or use is expressly allowed by a tariff.

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12. (a) What is the single point of failure size? (i.e. How many line may be lost from any single network failure?) (b) Does the loss of a single amplifier cause service outage to an entire Remote Node serving area (i.e. 500 homes)?

Answer:

- a) Assuming that a duplex failure of redundant components does not fall within BA's definition of a "single point of failure", then the failure of the fiber optic link between the fiber hub and the fiber node would result approximately 500 homes passed being isolated from the network. The actual number of customers affected would depend on the number of SBC-MV customers within an affected fiber node.
- b) No, the loss of a single amplifier would not affect an entire node serving area.

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13. Is the telephony design non-blocking from both a transmission and switching perspective? If not, what are the basic traffic engineering assumptions used in designing SBC-MV's network?

Answer:

SBC-MV will design its network to meet or exceed a P.01 grade of service. Since vendors have not been selected, SBC-MV is unable to provide further details at this time.

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14. (a) What is the expected downtime of this network? (b) What performance may be expected?

Answer:

- a) Since equipment vendors have not been chosen to date, SBC-MV has not performed any calculations of the engineered expected downtime of the network as a whole.
- b) See (a) above. At a minimum, SBC-MV's customers can expect performance and reliability consistent with that considered generally acceptable to the industry and equal to or exceeding Bell Atlantic's.

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15. Do telephony services conform to Bellcore's LSSGRS which outline telephony standards?

Answer:

SBC-MV's telephony services will conform with accepted industry standards and will be compatible with the public switched network. In general, it is SBC-MV's intent to conform to Bellcore LSSGRS.

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16. SBC-MV states in its supplemental application that it is considering "using spare capacity from other parties to cover short term requirements." What other parties and what type of switch and/or switching capacity is SBC-MV referring to? In the long term, what type of switching device will be used? What is the maximum number of lines supported by this switch?

Answer:

SBC-MV has initiated discussions with several parties regarding the use of their switches. However, the discussions with those potential providers have been held under non-disclosure agreements, therefore, the names of those parties may not be disclosed.

SBC-MV has transmitted RFPs to various switch manufacturers. The information received from these vendors will be used, along with data from other existing providers, to make SBC-MV's short term and long term switching capacity decisions.

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17. Will switching devices support SS7 interconnection?

Answer:

YES.

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18. Will this network support Basic and Primary Rate ISDN? If so, is 64 channel clear service available?

Answer:

ISDN services are outside our initial market focus. Therefore, we have not considered service offerings such as 64 kb clear channel ISDN.

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19. Will set tops support Open Network Interconnection standards?

Answer:

SBC-MV will provide telephone service via a network interface and the existing internal twisted pair network. Because future set tops will not be used in providing telephone service, Open Network Architecture considerations are not relevant.

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20. Will this network support a full range of special services?

Answer:

Since SBC-MV is focusing on the residential customer, it is not designing or deploying a network that will be immediately capable of a "full range" of special service applications. However, the overall network architecture is very flexible. With the addition of certain network elements (e.g., digital cross connect frames, channel banks), and with equipment availability from our chosen vendor(s), SBC-MV could conceivably be in a position to offer a "full range" of special service applications over its network.

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21. Will the existing network be upgraded in phases? If so, outline phases and the service availability at each phase.

Answer:

Refer to The Application of Media Ventures, Inc. dated May 20, 1994 at 2 (Par. 2) and Exhibit D. Also refer to the answer to Question No. 2 contained in People's Counsel Data Request No. 1 to SBC-MV which is attached to this BA-Maryland Data Request in response to your Question No. 42. As a phase is completed, all the services SBC-MV is offering at that time will be available.

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22. Will each home served have a Network Interface Device or will a single device be shared over a number of homes?

Answer:

Each single family home will have its own Network Interface Device. A Network Interface Device will not be required for those customers only subscribing to cable services. Depending on the selected vendor's architecture, multi dwelling units (MDUs) may have a common network interface for multiple tenants.

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23. (a) What is the channel capacity of the network? (b) How many of these total channels are reserved for analog broadcast, digital broadcast, and interactive services? (c) What frequency ranges are reserved for these services, as well as telephony services? (d) What impact does this frequency allocation have on the quality of telephony service?

Answer:

- a) SBC-MV's planned network will operate in the 5-750 MHz spectrum. The channel capacity is a function of delivery techniques and services deployed within the spectrum (e.g., digital compressed video, digital audio).
- b) The planned network will include the existing 67 channels of analog video and 30 channels of digital audio. The expanded channel capacity will be determined by the frequency allocation of the equipment we purchase.
- c) Frequency allocation will be specific to the particular vendor's equipment. A possible frequency allocation is as follows:

Upstream Channels:	5-42 MHz
Analog Video:	50-550 MHz
Telephony / Digitized Video:	550-750 MHz

- d) None.

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24. (a) Will this network support interactive services? (b) If so, what switching technology will be used, and when will these services be available?

Answer:

- a) YES.
- b) Asynchronous Transfer Mode (ATM) would be the most likely choice. Since these services are beyond SBC-MV's initial market focus. If and when these type services will be brought to market is unknown.

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25. How much bandwidth will be available over this network? Will upgrades be required to coax wiring within the served home to support increased bandwidth?

Answer:

SBC-MV's planned network will operate in the 5-750 MHz spectrum. It will not require an upgrade to the existing FCC-compliant coax wiring within the served home.

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26. (a) What type of SONET rings will be used to interconnect fiber hubs? (b) Does this equipment meet existing SONET standards? (c) What are the capacities of these rings? (d) How many hubs will be served from a single ring? (e) Will Uni- or Bi- Direction Rings be used? (f) Will these rings provide 100% protection?

Answer:

SBC-MV will deploy a protected Hub ring architecture. Based on the vendor selected, this may include a SONET architecture. The final architecture (including the number of Hubs and transmission capacities) is a function of the equipment provided by the vendor we select and therefore is not known at this time.

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27. (a) What type of housing will be used for Fiber Hubs and Remote Nodes? (b) Does this equipment require an environmentally controlled structure? (c) What are the dimensions of the required footprint? (d) What are the impacts of these requirements on Right of Way and Aesthetics issues?

Answer:

Fiber Hubs will be deployed in environmentally controlled housing (e.g., small hut). This housing will accommodate the video, telephony and powering equipment. A final footprint will be determined after vendor selection. Hub placement will use existing rights-of-way to which SBC-MV currently has access. Additional rights-of-way, if any, will be acquired as required. Fiber Nodes will be deployed in small cabinets (e.g., 1730 enclosure).

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28. What is the maximum distance that will be supported between the telephony serving switch and a served home? Will signal quality be affected at these distances?

Answer:

SBC-MV will deploy a fiber-to-the-node architecture. Given this architecture, the distance from the node to the customer is of greater importance than the total distance from the switch to the customer. In most cases, customers will be within one mile of the serving node. This architecture ensures high quality telephony service that conforms to Bellcore standards.